



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

647.0310

Job Sheet 169450



Part No: 647.0310

Job Qty: 30 ea

Part Name: Channel



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/12/17

Job Tracking No:

Due Date: 12/22/17

Created By: Linda Lacelle

Type: SOLD

Description:

Customer: Alpine Aerotech LP - Kelowna (CALPI02)

1260 Industrial Road Kelowna, BC, V1Z 1G5 Canada ph:(250) 769-6344 fx:(250) 769-6303.

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	30 Ea		12/21/17	0.00	0.00	Start Up Machining-1		7.14 12/12/15
100	Bandsaw	30 pcs		12/21/17	0.00	3.77	Bandsaw1		J.C.
110	CNC Vertical Machining	30 pcs		12/22/17	0.25	13.89	HAAS1-1		J.C.
130	QC	30 pcs		12/22/17	0.00	0.00	QC8 Machining-1		FK 12-12-16
140	Outsource	30 pcs		12/22/17			ATG001-VC	10	YMD 18/1/17
150	Packaging	30 pcs		12/22/17	0.00	0.00	Packaging2		YMD 18/1/17
155	QC	30 pcs		12/22/17	0.00	0.00	QC5		PD 18-01-18
180	Packaging	30 pcs		12/22/17	0.00	0.00	Packaging3-1		CKoro 4T18/01/19
190	QC21-SA	30 Ea		12/22/17	0.00	0.00	QC21		

Part Op 100 - Cut Blank at 8.025"

Descriptions: 110 - 1-Machine per folio FB134

140 - Issue P/O to ATG : _____ Hard Black Anodize / Prime as per Dwg 647.0300

180 - ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

DAS
21
9-09

JAN 22 2016

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M7075T6S1.250X2.000	30	0	0	0

19X A138 532-187 2.68' M138 532-187
FM138 533-3 2.7'

UPDATE

Work Order update only ☐

AGAINST DEPARTMENT/PROCESS

Cross tube	☐	Water Jet	☐	Engineering	☐
Small Fab	☐	Prod. Eng. Coord.	☐	Quality	☐
Finishing	☐	Rec/Store/Packaging	☐	Other	☐
Composite	☐	Supplier	☐		

MRB (QSI042) Approval

Disposition

Completed By

Lead hand / Supervisor
Approval Verification

QC / QA Coordinator

PART NO:
Revision:
Operation:
Change No:

647.0310
Outsource

Mfg Date: 01/12/18
Job No: 169450



DART
AEROSPACE
S031783

Channel

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Mfg Date: 12/15/17
Job No: 169450

Start up Operation
647.0310

PART NO:
Revision:
Operation:
Change No:



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Root Cause

Environment	☐	No Re-verification	☐	Pressure/Forced	☐
Design	☐	Operator	☐	Bending	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wav	☐
Material	☐	Use for Testing	☐	Cuffs	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐
Past Expiry Date	☐	Manufacturing Process	☐		
Misidentified	☐	Past Due	☐	OTHER :	☐

Part Specifications					
Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Channel	1.750Inches ± 0.010	1.760 1.740	1.755	HG.
2	Channel	0.100Inches ± 0.010	0.110 0.090	0.103	Mic 65B11351
3	Channel	0.770Inches ± 0.010	0.780 0.760	0.762	HG.
4	Channel	0.860Inches ± 0.010	0.870 0.850	0.853	H.G.
5	Channel	0.190Inches ± 0.010	0.200 0.180	0.185	Mic 65B11351
6	Channel .088	0.880 Inches ± 0.010	0.890 0.870	.090	Radius R.G.
7	Channel	0.290Inches ± 0.010	0.300 0.280	.290	Ver EDG
8	Channel	45.000Degrees ± 0.500	45.500 44.500	45°	Angle D.A.F.
9	Channel	0.780Inches ± 0.010	0.790 0.770	0.780	Ver EDG
10	Channel	7.150Inches ± 0.010	7.160 7.140	7.150	Ver CNC02
11	Channel	7.900Inches ± 0.010	7.910 7.890	7.900	Ver CNC02

Plex 12/12/17 9:13 AM dart.lacelle.linda

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					



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Canada

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PURCHASE ORDER PO038682

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
14	168254	646.3814	649.5200 2- PRIME AS PER DWG. SEE NOTE #2 Certification of Conformity is required Wiper Bracket Issue P/O to ATG:	Firmed	1/17/18	4 pcs	0 pcs	4 pcs	\$7.10/pcs	\$28.40
15	169450	647.0310	AS PER MPP-172 SECTION 2.1, HARD ANODIZE COLOR BLACK, PER IAW MIL-A- 8625 TYPE 3 CLASS 2 AS PER MPP-172 SECTION 4.2, PRIME AS PER IAW MIL-PRF-23377 TYPE 1 CLASS N Certification of Conformity is required Channel Issue P/O to ATG:	Firmed	1/17/18	30 pcs	0 pcs	30 pcs	\$12.10/pcs	\$363.00
16	169391	647.7823	Hard Anodize Black / Prime as per Dwg 647.0300 Cross Bracket Aft Issue P/O to ATG:	Firmed	12/22/17	10 pcs	0 pcs	10 pcs	\$12.25/pcs	\$122.50
Line Item Note RUSH										
17	169009	RBT18601	Main Rotor Swashplate ReGreasing Tool -Issue P/O to ATG : PO -ANODIZE COLOR RED, PER IAW MIL-A-8625 TYPE-2 CLASS-2 Water seal -Certificate of Conformity is required	Firmed	1/17/18	6 pcs	0 pcs	6 pcs	\$26.00/pcs	\$156.00
18	169224	RB910-0003-1	Quill -Issue P/O to ATG: -ANODIZE COLOR BLACK, PER IAW MIL-A- 8625F TYPE 2 CLASS 2, Water sealant As Per DWG RB910- 0003-1 Rev. 5	Firmed	1/17/18	3 pcs	0 pcs	3 pcs	\$6.20/pcs	\$18.60
19	169418	RBD29936	Tail Rotor Bungee Tool -Issue P/O to ATG: -ANODIZE COLOR BLACK, PER IAW MIL-A- 8625F TYPE 2 CLASS 2, Water sealant -Certificate of Conformity	Firmed	1/17/18	3 pcs	0 pcs	3 pcs	\$6.20/pcs	\$18.60



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914408

Date: 11-Jan-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
23 ea	Part: 647.0310 Channel Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 22203	Rev: N/C	PO: PO038682 Line: 15
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>11/1/18</u> Certified Signature: <u>[Signature]</u> Receiver Signature: <u>[Signature]</u> A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			
Made in Canada			

Operation Number	Operation	Serial Number	Job	Quantity	Weight	Original Serial Number	Location	Container	Status	Added	Special Comments	Label	Supplier	Change No
Part Number: 647.0310 Revision: Channel														
130	QC	S022570	169450	7 pcs	0	S022570	ATG001-VC		WIP	12/15/2017	*			
Operation Totals:		1		7	0									
190	QC21-SA	S031783	169450	23 Ea	0	S022570	CCK090	Bin	Stock	1/12/2018	*			
Operation Totals:		1		23	0									
Part Totals:		2		30	0									
Part Number: M7075T6S1.250X2.750 Revision: M7075T6S1.250" X2.750" Cut From Plate														
100	Receive Ft	M138532-187	169450	1 ft	0		Start Up Machining-1		Stock	10/24/2017	*			
Operation Totals:		1		1	0									
Part Totals:		1		1	0									
Totals:		3		31	0									

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								